What is claimed is:

1. A method for inhibiting and preventing a malignant cell phenotype comprising administering to cells a low dose of a nitric oxide mimetic.

2. The method of claim 1 wherein the cells are in a subject at risk for or suffering from a malignant cell phenotype.

3. The method of claim 1 or 2 wherein administration of the nitric oxide mimetic inhibits metastases and development of resistance to antimalignant therapeutic modalities in the cells.

4. The method of claim 1 or 2 wherein administration of the nitric oxide mimetic inhibits development of a more aggressive malignant cell phenotype in the cells upon administration of an anti-VEGF agent.

5. The method of claim 1 or 2 wherein administration of the nitric oxide mimetic inhibits development of a malignant cell phenotype in cells exposed to factors which lower cellular nitric oxide mimetic activity.

6. The method of claim 1 or 2 wherein more than one nitric oxide mimetic is administered.

7. The method of claim 6 wherein an NO donor is co-administered with a compound that inhibits cyclic nucleotide degradation.

8. A method for increasing efficacy of an antimalignant therapeutic modality against cancer cells comprising administering to the cells a low dose of a nitric oxide mimetic.

9. The method of claim 8 wherein the antimalignant therapeutic modality comprises radiation therapy.

10. The method of claim 8 wherein the nitric oxide mimetic is GTN administered at a dosage ranging between 0.0125 g/hr to 0.1 mg/hour.

11. A formulation for inhibiting and preventing a malignant cell phenotype comprising a nitric oxide mimetic in an amount which increases, restores or maintains nitric oxide mimetic activity of cells to a level which prevents or inhibits a malignant cell phenotype.

12. The formulation of claim 11 wherein the amount of nitric oxide mimetic delays development or reduces development of drug tolerance to the nitric oxide mimetic or side effects.

13. The formulation of claim 11 comprising more then one nitric oxide mimetic.

14. The formulation of claim 13 wherein the nitric oxide mimetics include an NO donor and a compound that inhibits cyclic nucleotide degradation.

15. A method for inhibiting and preventing a malignant cell phenotype in an animal comprising administering to an animal in need thereof a low dose of a nitric oxide mimetic.

16. The method of claim 15 wherein more than one nitric oxide mimetic is administered.

17. The method of claim 16 wherein an NO donor is co-administered with a compound that inhibits cyclic nucleotide degradation.

18. The method of claim 15 wherein administration of the nitric oxide mimetic inhibits tumor metastases and development of resistance to antimalignant therapeutic modalities in cells in the animal.

19. The method of claim 15 wherein administration of the nitric oxide mimetic inhibits development of a more aggressive malignant cell phenotype in cells in the animal upon administration of an anti-VEGF agent to the animal.

20. The method of claim 15 wherein administration of the nitric oxide mimetic inhibits development of a malignant cell phenotype in animals exposed to factors which lower cellular nitric oxide mimetic activity.

21. A method of treating cancer in a subject comprising administering to a subject in need thereof a low dose of a nitric oxide mimetic.

22. The method of claim 21 wherein more than one nitric oxide mimetic is administered.

23. The method of claim 22 wherein an NO donor is co-administered with a compound that inhibits cyclic nucleotide degradation.

24. The method of claim 21 wherein the cancer comprises breast, endometrial, uterine, ovarian, vaginal, cervical, colon, stomach, esophageal, prostate, testicular, bone, skin, eye, head and neck, brain, liver, pancreatic, renal, bladder, urethral, thyroid or lung cancer, leukemias, melanoma, myeloma, lymphoma or Hodgkin's Disease.

25. The method of claim 21 wherein the cancer is prostate cancer.

26. The method of claim 21 further comprising administering to the subject radiation therapy.

27. A method for prophylactically inhibiting and preventing a malignant cell phenotype in animals at high risk for developing cancer comprising administering to the animals a low dose of a nitric oxide mimetic.

28. The method of claim 27 wherein more than one nitric oxide mimetic is administered.

29. The method of claim 28 wherein an NO donor is co-administered with a compound that inhibits cyclic nucleotide degradation.

30. A method of monitoring or diagnosing the progression of a tumor in a patient comprising measuring a level of a tumor marker in the patient in the presence of a low dose of a nitric oxide mimetic.

31. The method of claim 30 wherein the tumor marker is prostate specific antigen.

32. A method for decreasing a tumor marker level in a patient comprising administering to the patient a low dose of a nitric oxide mimetic.

33. The method of claim 32 wherein the tumor marker is prostate specific antigen.

34. The method of claim 32 wherein the nitric oxide mimetic is GTN at a dosage ranging between 0.0125 μg/hr to 0.1 mg/hour.

35. The method of claim 32 further comprising administering to the subject radiation therapy.

36. The use of a nitric oxide mimetic for preparation of a medicament for increasing, restoring or maintaining nitric oxide mimetic activity of cells to a level which increases efficacy of an antimalignant therapeutic modality against cancer cells.

37. The use of a nitric oxide mimetic for preparation of a medicament for increasing, restoring or maintaining nitric oxide mimetic activity of cells to a level which inhibits and prevents a malignant cell phenotype in an animal.

38. The use of a nitric oxide mimetic for preparation of a medicament for increasing, restoring or maintaining nitric oxide mimetic activity of cells to a level which prophylactically inhibits and prevents a malignant cell phenotype in an animal at high risk for developing cancer.

39. The use of a nitric oxide mimetic for preparation of a medicament for treating cancer.

40. The use of claim 39 wherein the cancer comprises breast, endometrial, uterine, ovarian, vaginal, cervical, colon, stomach, esophageal, prostate, testicular, bone, skin, eye, head and neck, brain, liver, pancreatic, renal, bladder, urethral, thyroid or lung cancer, leukemias, melanoma, myeloma, lymphoma or Hodgkin's Disease.